

What is claimed is:

1. A method for testing an HVAC system for a building structure from a remote location outside of the building structure, the HVAC system having a primarily active component and a primarily dormant component, the method comprising the steps of:

transmitting a test request to the HVAC system from the remote location;  
performing a test on the primarily dormant component of the HVAC system in response to the test request, and producing a test result; and  
transmitting the test result to a location outside of the building structure.

2. The method of claim 1 wherein the primarily active component is a heating component.

3. The method of claim 2 wherein the primarily dormant component is a cooling component.

4. The method of claim 1 wherein the primarily active component is a cooling component.

5. The method of claim 4 wherein the primarily dormant component is a heating component.

6. The method of claim 1 wherein the test request is transmitted to the HVAC system from a remote computer.
7. The method of claim 6 wherein the test request is transmitted to the HVAC system from the remote computer via a telephone line connection.
8. The method of claim 6 wherein the test request is transmitted to the HVAC system from the remote computer via a wireless connection.
9. The method of claim 6 wherein the test request is transmitted to the HVAC system from the remote computer via a computer network.
10. The method of claim 6 wherein the test request is transmitted to the HVAC system from the remote computer via the internet.
11. The method of claim 6 wherein the HVAC system includes a gateway for receiving the test request from the remote computer, and for communicating with the HVAC system.
12. The method of claim 11 wherein the gateway stores one or more tests.

13. The method of claim 12 wherein the gateway submits at least one of the one or more tests to the HVAC system in response to the test request.

14. The method of claim 13 wherein the gateway selects a subset of the one or more tests and submits the subset of the one or more tests to the HVAC system in response to the test request.

15. The method of claim 1 wherein the HVAC system includes two or more zones, and the test that is performed activates the primarily dormant component in conjunction with each of the two or more zones.

16. The method of claim 1 wherein the transmitting step transmits a test request to two or more HVAC systems from the remote location.

17. The method of claim 16 wherein the performing step performs a test on the primarily dormant component of the two or more HVAC systems in response to the test request, and produces a test result for each HVAC system.

18. The method of claim 17 wherein the transmitting step transmits the test result for each HVAC system to a location outside of the building structure.

19. The method of claim 1 wherein the remote location that the test request is transmitted from is the same as the remote location that the test result is transmitted.

20. The method of claim 1 wherein the remote location that the test request is transmitted from is different than the remote location that the test result is transmitted.

21. A method for testing a plurality of HVAC systems each in a different building structure or in a different region of a common building structure from a remote location, the method comprising the steps of:

transmitting a test request to each of the plurality of HVAC systems from the remote location;

performing one or more tests on each of the HVAC systems in response to the test request, and producing a test result for each of the HVAC systems; and

transmitting the test result for each of the HVAC systems to a remote location.

23. The method of claim 21 wherein at least some of the plurality of HVAC systems include a primarily active component and a primarily dormant component, and wherein at least one of the one or more tests that is performed activates and tests the primarily active component of the corresponding HVAC system in response to the test request.

23. The method of claim 21 wherein at least some of the plurality of HVAC systems include a primarily active component and a primarily dormant component, and wherein at least one of the one or more tests that is performed activates and tests the primarily dormant component of the corresponding HVAC system in response to the test request.

24. The method of claim 23 wherein at least one of the one or more tests that is performed activates and tests the primarily active component of the corresponding HVAC system in response to the test request.

25. A method for determining which of a plurality of HVAC systems will require maintenance, the method comprising the steps of:

transmitting a test request to each of the plurality of HVAC systems from the remote location;

performing one or more tests on at least selected ones of the HVAC systems in response to the test request, and producing a test result for each of the selected HVAC systems;

transmitting the test result for each of the selected HVAC systems to a remote location; and

identifying which of the HVAC systems will likely need service by analyzing the test results.

26. The method of claim 25 further comprising the step of providing different test requests to at least two of the plurality of HVAC systems, wherein each test request identifies a different test to perform.

27. The method of claim 26 further comprising the step of charging an owner of an HVAC system an amount that depends on the particular test that is performed on the HVAC system.

28. The method of claim 25 further comprising the step of scheduling service on at least some of the HVAC systems that have been identified as likely needing service.

29. A method for testing an HVAC system for an inside space prior to a heating season, the HVAC system having a heating component, the method comprising the steps of:

activating the heating component even though the HVAC system would not normally call for heat; and

determining if the heating component is in compliance with a number of predetermined conditions.

30. A method for testing an HVAC system for an inside space prior to a cooling season, the HVAC system having a cooling component, the method comprising the steps of:

activating the cooling component even though the HVAC system would not normally call for cool; and

determining if the cooling component is in compliance with a number of predetermined conditions.

31. A method of remote testing of HVAC systems comprising the steps of:  
transmitting one or more maintenance signals from a remote unit to a specified group of customer HVAC systems, the specified group being a number less than a total number of customer HVAC systems in a customer database;

receiving the one or more maintenance signals at each of the HVAC systems, the one or more maintenance signals activating an HVAC component;

performing a self-test on the activated HVAC component based on the received one or more maintenance signal;

generating self-test result signals from the activated HVAC component based on the self-test performed on the activated HVAC component;

transmitting the self-test result signals from the HVAC system to the remote unit;  
and

receiving the self-test result signals from the HVAC systems at the remote unit.

32. The method according to claim 31, further comprising the step of  
determining the specified group of customer HVAC systems based on the specified group

of customer HVAC systems being within a specified geographic area prior to the step of transmitting the one or more maintenance signals.

33. The method according to claim 31, further comprising the step of determining which customer HVAC systems from the specified group of customer HVAC systems likely require maintenance based on the self-test signals received by the remote unit.

34. The method according to claim 33, further comprising the step of performing maintenance on the customer HVAC systems that are determined to likely require maintenance based on the self-test signals received by the remote unit.